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09/892,422	06/26/2001	Tim M. Hoberock	10005234-1	2786

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EXAMINER	
DIVINE, LUCAS	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/892,422	HOBEROCK ET AL.	
	Examiner	Art Unit	
	Lucas Divine	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-20 and 22-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-20 and 22-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1, 3 – 20, and 22 – 27 are pending; claims 2 and 21 are canceled.

2. The 112 (2) rejection of claims 6 – 8 is maintained because even though claim 6 was amended to depend from claim 4, there is still a lack of antecedent as indicated in expanded 112 rejection below.

Response to Arguments

3. Applicant's arguments filed 6/20/05 have been fully considered but they are not persuasive.

With respect to applicant's arguments on page 10 regarding amended claim 1 that the traversal rail printing of Cotter would not have been obvious to replace the multi-head printing of Bruce-Sanders.

In reply, while Bruce-Sanders teaches multiple print heads on a carriage, Bruce-Sanders does not specifically teach that the printhead is adapted to move along a traverse rail.

Cotter teaches a printhead that is adapted to move along a traverse rail printhead is adapted to move along a traverse rail (printhead 36 moving up and down a rail shown in Fig. l).

It would have been obvious to one of ordinary skill in the art that the system of Bruce-Sanders could have one print head moving along a rail instead of multiple stationary print heads. The motivations for supplying only one device instead of multiple would be cost and control. It

would be easier to control one printhead instead of programming control for multiple all printing at the same time. Also it would be less expensive to buy 1 printhead as opposed to a plurality.

Further, to expand on the cost motivation, in a system with only one printhead instead of many, the user of the printing device might buy a higher quality print head that prints a better output since they do not need to buy a plurality, which might cause them to buy printheads that are of lower quality to save money. Other advantages of only buying one item instead of buying many for cost reasons are well known.

Further, to expand on the control motivation, fewer control signals and/or wires need to be implemented in the system because only one printhead is being used (this also can save cost). The user can also focus on programming one device, which may allow the user more time and a better program for outputting.

Further, an added motivation would have been less waste of resources. For example, if large items are printed in generally the same areas (the middle for example), the top and bottom-most print heads of Bruce-Sanders would hardly, if ever used. Thus a system has resources that are wasted by lack of use. Therefore, over time they might deteriorate etc... and prove unusable. In this case, as well as just the fact of paying for resources (cost) that aren't used, shows a waste of printhead and money resources.

Further, an added motivation would have been less monitoring, easier replacement and fixing of printheads. Instead of keeping track of the ink level of plenty of printheads, only one needs to be checked. Also, the plurality of print heads might have a maintenance person come out one day to fix one printhead, and then the next day a different one breaks, and he comes out

again. Thus cost and time are not maximized. Also, instead of testing the quality of output of many heads, just one needs to be checked.

Further, an added motivation would have been the printing apparatus would have been smaller and lighter. Benefits of size are well known in the art, which include shipping the parts, moving the display board, and more.

Further, an added motivation would have been the less prone to errors. With less print heads, the percentage of error decreases.

Further, an added motivation would have been similar to using only one black cartridge in ink jet printers. It is a common and well known feature to only use one black (or all colors) inkjet cartridge in ink jet printers in general, with sliding the head over the document. This is even a design of the application assignee, Hewlett-Packard. Some or all of the motivations listed above motivated the original sliding head ink jet designs. Further, there are other well known reasons for doing so in an ink printing system which would be clear to applicant.

For these reasons, as well as possibly others, Examiner believes the combination to be obvious and the rejection is maintained.

With respect to applicant's argument at the bottom of page 10 and the top of page 11 that the combination would change the principle operations.

In reply, the combination just adds the traversing print head of Cotter to the printing system of Bruce-Sanders. All other ideas of Cotter, such as writing on the back of the display, mentioned by applicant, are not added to the system of Bruce-Sanders as well as other aspects of

Cotter that are not included in the combination. Therefore, the principle operation of Bruce-Sanders would not be altered, just the printing apparatus.

4. Applicant's arguments with respect to claims 9 – 11, 18, 19 – 22, 23, and 24 have been considered but are moot in view of the new ground(s) of rejection. These claims all are amended, thus Examiner has set forth new rejections below for these claims bring in new prior art that specifically teaches these limitations.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3 – 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 4 recites the limitation "the presentation system of claim 2" in page 2 of amendment. There is insufficient antecedent basis for this limitation in the claim because no claim 2 exists.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 23, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Tomida et al. (US 6652086).

Regarding claim 1, Tomida teaches **a presentation system** (Figs. 1A – D, Figs. 2A – D, Fig. 11, Fig. 12 – which can be a whiteboard [col. 1 line 19] [wherein whiteboards can receive writing {felt-pen, col. 1 line 31 – marking-pen, col. 11 line 38} in dry-erase ink]) **comprising:**

a writing surface (2, Fig. 1A – see col. 14 lines 2-8) **coupled with a frame** (8, Fig. 1A), **the writing surface being adapted to receive erasable ink** (printing with ink that is erased, col. 4 lines 11-23, col. 8 lines 58-59); **and**

a printer (ink-jet recording apparatus includes 1 and 4, see also Fig. 7) **coupled with the frame** (see Fig. 1B, 2B), **the printer including a printhead** (4, Fig. 1D) **configured to print an image on the writing surface with erasable ink** (printing with ink that is erased, col. 4 lines 11-23, col. 8 lines 58-59);

wherein the printhead is adapted to move along a traverse rail (Figs. 1D, 2D, 11, 12 show the printhead 1 printing across the surface via a traverse rail; col.4 line 6; col. 5 lines 63-64, e.g. 67, Fig. 7).

Regarding claim 23, Tomida teaches a method for creating an image to be viewed during a presentation comprising:

obtaining (it is inherent that the image sent to the printer must be obtained from somewhere, either memory or user input or a scanner somewhere else) **, in electronic form** (information signals represent the image, col. 5 lines 52-55), **the image to be viewed** (6);

sending the image to a presentation system (col. 5 lines 52-55 teaches the printer receiving information signals of the image to be printed) **including a printer** (includes 1 and 4, see also Fig. 7) **with a printhead adapted to print erasable ink** (printing with ink that is

erased, col. 4 lines 11-23, col. 8 lines 58-59) **onto a writing surface** (2, Fig. 1A– see col. 14 lines 2-8); **and**

printing (display of image, col. 5 lines 15-18) **the image on the writing surface** (Fig. 1A shows the printed image 6 on the surface).

Regarding claim 24, which depends from claim 23, Tomida teaches **the printer is adapted to print images in dry-erase ink** (ink dries [e.g. col. 6 line 3, col. 6 line 21, col. 17 line 14, col. 16 line 22]and is wiped off by the eraser [wiped ink, e.g. col. 5 line 1]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1 and 12 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruce-Sanders (US 4429478) in view of Cotter (US 3873769).

Regarding claim 1, Bruce-Sanders teaches **a presentation system** (Fig. 1) **comprising:**

a writing surface (10A) **coupled with a frame** (20), **the writing surface being adapted to receive erasable ink** (dry erase ink; col. 4 line 9); **and**

a printer coupled with the frame (carriage 12 performs printing across the board), **the printer including a printhead** (print heads 14) **configured to print an image on the writing surface with erasable ink** (image shown in Fig. 1 as being printed with dry erase ink).

While Bruce-Sanders teaches multiple print heads on a carriage, Bruce-Sanders does not specifically teach that the printhead is adapted to move along a traverse rail.

Cotter teaches a printhead that is adapted to move along a traverse rail printhead is adapted to move along a traverse rail (printhead 36 moving up and down a rail shown in Fig. l).

It would have been obvious to one of ordinary skill in the art that the system of Bruce-Sanders could have one print head moving along a rail instead of multiple stationary print heads. The motivations for supplying only one device instead of multiple would be cost and control. It would be easier to control one printhead instead of programming control for multiple all printing at the same time. Also it would be less expensive to buy 1 printhead as opposed to a plurality.

Regarding claim 12, which depends from claim 1, Bruce-Sanders teaches **an eraser adapted to erase the writing surface** (erase roller 16; col. 4 lines 20-22).

Regarding claim 13, which depends from claim 12, Bruce-Sanders teaches **the eraser is adapted to traverse the writing surface** (col. 6 lines 52-54).

Regarding claim 14, which depends from claim 12, Bruce-Sanders teaches **wherein the writing surface is adapted to move past the eraser** (Figs. 8 and 9 show how the surface can be rotated past the eraser).

Regarding claim 15, which depends from claim 1, Bruce-Sanders teaches **a processor having memory** (CPU 100 and memory 101), **the processor being in communication with the**

printer (print commands to interface 105) **and adapted to provide an image to the printer to be printed on the writing surface** (Fig. 7 shows the command signals used to control the carriage for printing an image that has been retrieved from memory, see cols. 7 and 8).

Regarding claim 16, which depends from claim 1, Bruce-Sanders teaches **the erasable ink is dry-erase ink** (col. 4 line 8).

Regarding claim 17, which depends from claim 1, Bruce-Sanders teaches **the writing surface is 2' x 3' or larger** (it is inherent by the definition of the writing surface as a sign and from the figures that the writing surface is larger than 2'x 3').

8. Claims 9 – 11, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomida as applied to claim 1 and 23 above, and further in view of Tadokoro et al. (US 4819078).

Regarding claims 9 and 10, which depend from claim 1, while Tomida teaches an electronic print board system on which images can be erasably written manually including a printer and eraser and a board that is a flexible sheet (see Fig. 1B sheet 2 of Tomida and its similarities to Fig. 2 sheet 1 of Tadokoro), Tomida does not specifically teach a scanner adapted to scan the writing surface.

Tadokoro also teaches electronic print board system on which images can be erasably written manually including a printer and eraser and a board that is a flexible sheet including **a scanner adapted to scan the writing surface** (document reader 13).

Tadokoro (as primary aspects of their invention) does this in order to scan the data and save it for possible re-printing on the screen, for handouts, for saving, or for transmitting to others (see reference or previous action for detailed explanation).

Therefore, for these obvious motivations of adding a scanner to a whiteboard system, one of ordinary skill in the art would have found it obvious to add the beneficial elements of Tadokoro (scanner, storage, extra printer for handouts) to the system of Tomida.

Regarding claim 11, which depends from claim 10, Tadokoro teaches **an attached second printer in communication with the scanner** (printer 11 prints out the scanned images, col. 4 lines 7-10).

Regarding claim 25, which depends from claim 23, while Tomida teaches an electronic print board system on which images can be erasably written manually including a printer and eraser and a board that is a flexible sheet (see Fig. 1B sheet 2 of Tomida and its similarities to Fig. 2 sheet 1 of Tadokoro), Tomida does not specifically teach a scanner adapted to scan the writing surface or printing the saved scanned data later on.

Tadokoro also teaches electronic print board system on which images can be erasably written manually including a printer and eraser and a board that is a flexible sheet including a scanner adapted to scan the writing surface (document reader 13) and

scanning an image on the writing surface (col. 2 lines 15-16, col. 2 lines 19-22, col. 3 lines 8-11),

saving the scanned image in electronic form (col. 3 lines 10-11, wherein the controller then saves the image data in single screen memory 17 or memory 8 and can further copy it later into hard drive 22b or floppy drive 22a or to personal computer 22c), **and**

printing the scanned image on the writing surface at a later time (col. 5 lines 25-40 teach the saved image data can be reprinted out from the storage/input devices; further discussed in col. 6 lines 10-17 and col. 2 lines 10-20).

Tadokoro (as primary aspects of their invention) does this in order to scan the data and save it for possible re-printing on the screen, for handouts, for saving, or for transmitting to others (see reference or previous action for detailed explanation).

Therefore, for these obvious motivations of adding a scanner to a whiteboard system, one of ordinary skill in the art would have found it obvious to add the beneficial elements of Tadokoro (scanner, storage, extra printer for handouts) to the system of Tomida.

Regarding claim 26, apparatus claim 10 is the same as apparatus claim 26. Therefore, the reasons stated in the rejection of apparatus claim 10 are applicable to apparatus claim 26.

9. Claims 18 – 20, 22, and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Tomida in view of Tadokoro.

Regarding claim 18, Tomida teaches **a presentation board** (Figs. 1A – D, Figs. 2A – D, Fig. 11, Fig. 12 – which can be a whiteboard [col. 1 line 19] [wherein whiteboards can receive writing {felt-pen, col. 1 line 31 – marking-pen, col. 11 line 38} in dry-erase ink]) **adapted to**

display an image for simultaneous viewing by a plurality of viewers (as whiteboard), **the presentation board comprising:**

a writing surface (2, Fig. 1A – see col. 14 lines 2-8);

a printer (ink-jet recording apparatus includes 1 and 4, see also Fig. 7) **disposed to print non-permanent ink onto the writing surface** (printing with ink that is erased, col. 4 lines 11-23, col. 8 lines 58-59);

an electronic image (col. 5 lines 52-55 teaches the printer receiving information signals of the image 6 to be printed);

While Tomida teaches an electronic print board system on which images can be erasably written manually including a printer and eraser and a board that is a flexible sheet (see Fig. 1B sheet 2 of Tomida and its similarities to Fig. 2 sheet 1 of Tadokoro), Tomida does not specifically teach a scanner adapted to scan the writing surface or a processor that sends the data (even though the data is sent from somewhere in Tomida, it doesn't say exactly where).

Tadokoro also teaches electronic print board system on which images can be erasably written manually including a printer and eraser and a board that is a flexible sheet including **a scanner adapted to scan the writing surface** (document reader 13) and **a processor adapted to transmit the electronic image to the printer** (controller 7, Fig. 2, which sends data to printer 14).

Tadokoro (as primary aspects of their invention) does this in order to scan the data and save it for possible re-printing on the screen, for handouts, for saving, or for transmitting to others (see reference or previous action for detailed explanation).

Therefore, for these obvious motivations of adding a scanner to a whiteboard system, one of ordinary skill in the art would have found it obvious to add the beneficial elements of Tadokoro (scanner, storage, extra printer for handouts) to the system of Tomida.

Further, it would have been obvious to one of ordinary skill in the art that image data comes from a controller which retrieves the data from somewhere (either memory or user interface, etc.). The motivation for doing so would have been to have a device to control the system and routing of data.

Regarding claim 19, which depends from claim 18, Tomida teaches **the printhead is adapted to print with erasable ink and the writing surface is adapted to receive erasable ink** (printing with ink that is erased, col. 4 lines 11-23, col. 8 lines 58-59).

Regarding claim 20, which depends from claim 19, Tomida teaches **the erasable ink is dry-erase ink** (ink dries [e.g. col. 6 line 3, col. 6 line 21, col. 17 line 14, col. 16 line 22]and is wiped off by the eraser [wiped ink, e.g. col. 5 line 1]).

Regarding claim 22, which depends from claim 19, Tomida teaches **an eraser** (7, Fig. 1A).

Regarding claim 27, Tomida in view of Tadokoro teach all of the limitations of method claim 27 as discussed in the rejection of method claim 25, except the limitation listed below. Therefore, claim 27 is rejected for the same reasons as claim 25. Further, Tadokoro teaches the

image scanned is erased (because Tadokoro teaches the limitation of reprinting the data on the board at a later time [e.g. col. 5 lines 25-40, wherein stored scanned data can be rewritten on the drawing sheet], the data must have been erased, otherwise it would still be on the board and not need to be reprinted).

Conclusion

10. Examiner note: The main added reference in this final rejection was that of Tomida, *which was included in non-final rejection conclusion as a reference of pertinent nature*, and it seems, not reviewed. Examiner strongly suggests the full review of added patents listed below.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-6318825, Carau, Sr., 11-20-2001: teaches dry erase electronic whiteboard with page-wide-array inkjet printer.

US-2002/0157880, Atwood et al., 10-31-2002: teaches electronic whiteboard system eraser including a definition of electronic whiteboards.

US-2002/0171731, Saund, 11-21-2002: teaches systems and methods for hand-held printing on surface or medium, including printing on a whiteboard with dry erase ink.

US-2002/0008692, Omura et al., 1-24-2002 : teaches electronic blackboard system.

US-5903252, Ogata, 12-11-1999: teaches electronic whiteboard apparatus, *please review closely*.

US-6367902, Saund et al., 4-9-2002 : teaches effector platform for performing actions over vertical surfaces, including a pendulum whiteboard printer with dry erase ink.

US-6753986, Sato, 6-22-2004: teaches image reading device and electronic whiteboard including the same, see col. 1, 2, and 5 specifically.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 571-272-7432. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucas Divine
Examiner
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ljd

KING Y. POON
PRIMARY EXAMINER